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EDITED BY DR. ANDREW WILSON, F.R.S.E. &c.

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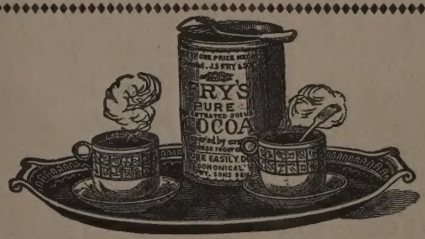

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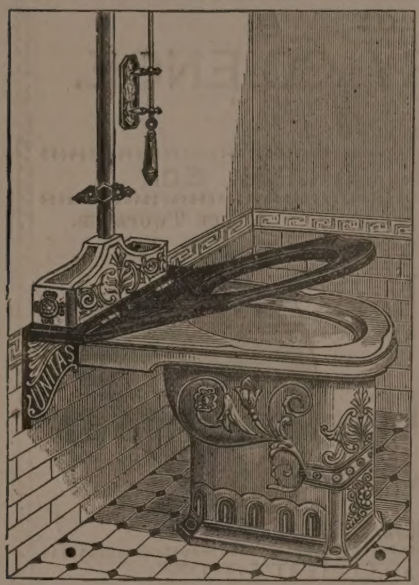

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VOL. XIII.

◆ HEALTH ◆

EDITED BY

DR. ANDREW WILSON, F.R.S.E., &c.

LONDON: *FRIDAY, APRIL 5*, 1889.

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Notes by the Way

By the Editor.

"Health is the foundation of all our physical happiness."—*Herder.*

This number begins a new volume of HEALTH—the thirteenth; and I again take the opportunity of reminding my readers that the present is a most favourable opportunity for recommending the aims of this Journal to their friends. Our bonus-system to Yearly Subscribers will be found duly detailed in each number preceding our "Letter Box" pages.

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Recently I stumbled across two choice samples of schoolboys' science. The first of these was a boy's essay on "breathing." The subject was asked, "Tell all you can about breathing." He said: "Breath is made of air. We breathe with our lungs, our lights, our kidneys. If it wasn't for our breath we would die when we slept. Our breath keeps the life a-going through the nose when we are asleep. Boys that stay in a room all day should not breathe. They should wait till they get out of doors. Boys in a room make bad, unwholesome air. They make carbonicide. Carbonicide is poisoner than mad dogs. A heap of soldiers was in a black hole in India, and a carbonicide got in that there black hole and killed nearly every one afore morning. Girls kill the breath with corosits that squeezes the diagram. Girls can't holler or run like boys because their diagram is squeezed too much. If I was a girl I'd ruther be a boy, so I can holler and run and have a great big diagram."

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The second sample I cut from an American exchange. "Hullo, Billy," shouted a Norwich public-school boy of the primary division to a parochial school companion, "I'm studying Hijine and Phizzerology now! Don't teach 'em in your school, does they? They tells yer all about your inside, just how many insisters and molers yer have in yer mouth, and how yer all tied together with ligerments. If these teachers tell the truth, Billy, we're dun up just as carefully as a bundle of dried apples is!"

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Speaking of children's head-gear, a medical journal says that a sudden return of frost at a period when east winds are expected renders it necessary that attention should be devoted to the clothing of children; the occasional brightness of sunshine is but too apt to encourage brisk movements with resulting respiration, and if the child is not sensibly clad, there is then considerable risk from rapid cooling of the surface from evaporation. There is much room for improvement in the head-gear of both girls and boys. Custom or fashion decrees that it is improper for boys while infants to wear the warm woollen hoods which are such sensible and comfortable coverings for baby girls. A small round hat is substituted, and, the ears being left entirely unprotected, much cold and discomfort result. All this might be obviated by the mere sacrifice of fashion to common sense. When the children are somewhat older, the girl is more to be pitied than the boy, for her hood grows out of all proportion, and she is but too often doomed to struggle under an enormous superstructure of plush and wire, which catches the wind like a sail. The light woollen hood might be used for both sexes, and in the case of girls it might, being largely conducive to health and comfort, continue to be worn for years longer than is customary at present.

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The following paragraph from the last annual report of the public analyst for the City of London indicates that arsenical wall-papers are still in use: "The occupants of two bedrooms constantly complained of headache, nausea, and lassitude in the morning, with other indications pointing to arsenical poisoning. Attention was

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drawn by the physician consulted to the wall-paper, which it was thought might contain arsenic; and, upon a sample being examined, an exceptionally large quantity of arsenic was actually found. Upon the paper being entirely removed, and with appropriate medical treatment, all the above symptoms subsided, and the patients recovered.

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A contemporary calls attention to the fact that a postage-stamp may in various ways convey contagion. One of the simplest and most plausible is that in which a postage-stamp, partially attached to a letter to pay return postage, is sent by a person infected with some disease to another person. The disease is transferred, in the first place, to the adhesive stamp through the saliva, and in being attached to the letter by the receiver the poison may be transmitted to him in turn through the saliva. Another cause may be the infection of the stamp with disease germs. The stamp, having been exposed in a room where a diseased person lies, may become slightly moistened, and thus retain the germ. That this is true can be proved very simply by a microscopical examination. We often see a person holding change for a moment in the mouth, probably not knowing that investigation has shown that disease germs can be carried by money. If one could see through what hands the money has passed, he would hesitate before using such a third hand. Silver money is as bad as paper money; but, while many would hesitate to hold a dirty bank-note in their mouth, they think that a silver piece, because bright, is apparently clean.

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In speaking of the effects of sanitary plumbing, the *Sanitary News* says: "Dr. A. R. Carter, of the Health Department of Baltimore, has published some interesting statistics in regard to the effects of sanitary plumbing. He says that during a period of fifty-four years, from 1830 to 1883 inclusive, there were in that city 12,197 deaths from scarlet fever, being an average of 226. In the last of those years there were 334 deaths. But the city council then passed an ordinance regulating plumbing, and in the years since there had been a remarkable decrease in the mortality from scarlet fever. In 1884 there were 104 deaths; in 1885, 67; in 1886, 32; and in 1887, 36; making a yearly average of 60, but with a plain tendency to decrease. The yearly average of deaths from diphtheria has in the same way diminished from 469 to 234."

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This kind of reasoning, in our judgment, adds the *News*, is very fallacious. If the diminution of diphtheria in Baltimore is to be attributed solely to the improvement in plumbing, why did not the same result take place in New York and Brooklyn, where the improvement in plumbing has been most marked since 1882? In that year, in New York, there were 1,009 deaths from diphtheria; in 1884, 1,090; 1885, 1,325; 1886, 1,727; 1887, 2,167. In Brooklyn, in 1883, 409 deaths occurred from this disease; in 1884, 385; 1885, 519; 1886, 782; and in 1888, 984. So far as scarlet fever is concerned, the statistics of Brooklyn show no such marked difference in the various years as could be attributed to the plumbing.

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Thus in 1883 there were 505 deaths from this disease; in 1884, 218; 1885, 363; 1886, 340; and in 1888, 475. In New York there was a notable decline from 2,066 deaths in 1882, to 744 in 1883, which could not be attributed to improvements in plumbing. Since that time the number of deaths has not been as high, but the diminution cannot, we think, be traced to the better plumbing. We do not wish to be understood as disbelieving in the value to life and health of good plumbing—on the contrary, we regard it as one of the most important factors in the preservation of health—but we do not think it the only factor, and believe it to be a mistake to attribute the reduction of contagious disease in any small series of years to a single cause.

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A few days ago, I had occasion to visit an Assize Court held in one of the northern towns of England. A case was being tried in which medical evidence concerning the injury the plaintiff was supposed to have sustained had been given. When the council for the plaintiff—an eminent Q.C.—rose to cross-examine the defendant's medical witness, I was afforded an excellent example of that legal bullying of medical men which judges permit, and which, unfortunately, the traditions of the bar sanction and countenance. "You don't agree with the medical men who say the plaintiff suffered, and still suffers, from a real injury?" asked the Q.C. "I do not," answered the witness. "Ah!" retorted the Q.C., "and I suppose the fact that the medical men on the opposing side allege he is still suffering makes you all the more convinced he does not suffer?"

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Now, I protest against this style of retort being regarded as necessary to the administration of justice, in any sense of that term. Why should any lawyer, however eminent, suggest that a member of a profession equally honourable with his own should simply swear and hold to an opinion because other medical men had taken an opposite view of a patient's case? My medical friend in the witness box might appropriately have retorted that such a practice was perhaps better illustrated by lawyers than by doctors; only this proceeding might have been held to have constituted "contempt of court," whereas counsel can bully witnesses as freely as they like without let or hindrance.

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If lawyers could only contrive to get one simple idea impressed on their minds, namely, that human beings and their ailments cannot be judged and studied as matters of mathematical certainty, they might perchance adopt a different tone to medical witnesses. The law itself seems to me to be largely based on the opinions of jurists. Why, then, should its votaries object to, or feel surprised at, medical men differing in opinion regarding what are often points in disease most difficult to determine? One judge recently spoke of medical evidence as if it were the invariable product of perjury. This fact only teaches us that the legal mind, in its way, is not above the need for enlargement concerning the difficulties of diagnosis which attend many cases of disease. All the same, I contend the attitude of the bar to hostile medical witnesses is little short of a disgrace to the legal profession; and I need not add that I am not by any means a solitary exponent of this opinion.

Original Essays

"Life is not to live, but to be well."—*Martial.*

THE FAMILY PHYSICIAN—PAST AND FUTURE.

By M.D.

Under the above title, Dr. Andrew H. Smith, an American physician, contributes to a contemporary a most interesting and reflective article. Dr. Smith's remarks are so apt and sensible that what he has to say regarding the relations of the family medical attendant to his patients, and to the world of medical science at large, may well form food for reflection to the readers of any journal devoted to the prevention of disease and the preservation of health—for in both of these admirable movements, the "family doctor" undoubtedly plays no unimportant part.

The old type of family physician is fast dying out. The trusted medical attendant and friend of the family is, I think, rapidly becoming an extinct variety of the professional man. Life, a generation or two gone by, was not the restless, bustling affair it is to-day; and the old doctor who knew every member of a family intimately and well, is a personage who is becoming rarer day by day. We reckon little on the very existence of such a man as a rule in these latter times. The idea has beset the public mind that when any ailment besets us we must hie off to a "specialist," who is believed to make this one organ or that his own and special study. The fact is, that save for the case of the general practitioner of country districts, the family physician of the past has no representative at all among us; and even the general practitioner just named, in the rush of modern life, has not the time, even if he had the inclination, to become the family friend such as the doctor of old unquestionably was.

Perhaps all this revolution in the social life of medical men must be viewed as a necessity of the age we live in. We may not decry it even though we regret the absence of the family doctor as the "guide, counsellor, and friend" that was. Science progresses and advances so fast that it is little wonder the younger medical men of the day seek rather to become specialists than general practitioners, if so be they have opportunity to devote themselves to the study of one branch of disease or one system of cure. Hence, as Dr. Smith endeavours to show, there must come — indeed, there has already dawned—a change in the relations which exist between medical men and their patients. The one natural idea of all men when they are ill is to get cured as speedily as possible; and no considerations of any kind will, in the long run, be allowed to interfere with the realization of this project. The progress of medicine is not a thing of which the public remain unaware; hence it is to the specialist that we mostly look to-day for the cure of our diseases and ills.

But specialism in medicine is not everything; nor does it fill the whole field of medical work. It is an excellent and necessary thing as far as it goes. The brain, eye, ear, throat, lungs, heart, stomach, and so forth, each and all demand special study if the intricate workings of disease are to be mastered fully and completely. Life is very short, and art very long—where the study of medicine is concerned—and the specialist is a most natural evolution of the advance of the profession of healing. On the other hand, let us see how the place occupied by the family doctor of old becomes in its turn elevated and defined by the very progress of physic which has evolved specialism in medicine.

It was Mr. Galton, we believe, who was one of the first to maintain that for the proper study of man in any sense we require a full record of the individual's family history, and of his hereditary tendencies. In a word, this contention implies that success in treating disease must be founded upon a knowledge of the personal history of the patient you are called upon to treat. There is sound reason in the remark. When a man or woman goes for the first time to a doctor, the latter must make his patient's personality a distinct study if his mission of cure is to prove a success. True, many doctors may slur this duty over, or neglect it entirely; but it stands to reason that unless a physician is to know the constitution of his patient, his freedom from this disease or that, and his tendency to this ailment or that, all attempts at cure must really partake of the nature of professional empiricism—or in plain language educated quackery.

Here the experience of the family physician steps in to aid the work of cure. Having the family history of the individual at his command, he begins his treatment far ahead, so to speak, of the strange doctor. He is able to discount this or that symptom, and is enabled to anticipate other symptoms, and so keeps well ahead of the ailment in the matter of "expectant" treatment, as it is called.

Dr. Smith fully recognizes all that has been said respecting the relationship between doctor and patient to which I have alluded. He says:—"In order that the best results may be reached, a change is necessary in the relation of the family physician to the families under his care. The defects in it to which brief allusion has been made must be removed. First of all the relation must have a more rational and a more permanent basis. There should be full recognition that it implies obligations on both sides; the obligation on the side of the physician to do everything in his power, at all times and under all circumstances, not only to relieve sickness when it occurs, but to prevent its occurrence, and the obligation on the side of the family to be loyal to the physician, to give him their complete confidence, to permit to him the fullest access to their history in the past and their lives in the present, and to respect his judgment, and so far as possible to be guided by it in all matters pertaining to his professional relation to them.

The first effect of a formal recognition of these obligations would be that the family physician would be selected with more care. His qualifications of mind and heart, of skill and experience, would be carefully inquired into, and the choice once made would have the elements of permanence. It would not be sacrificed to a momentary feeling of annoyance or a hysterical impatience of plain-speaking. And, should a death occur in the family, after every means to avert it had been faithfully applied, the bitterness of grief would not find vent in unmerited censure, nor disappointment at the result lead to withdrawal of confidence.

And thus day by day the bond would become more closely drawn, the physician acquiring more and more that familiarity with the characteristics of each member of the family which would enable him to detect the slightest aberration from the standard of health, and the family learning more and more to trust in the wisdom and skill and devotion of the physician. A relation established on such a basis would probably continue during the whole professional life of the practitioner, and include more than the first generation of his clients.

The family physician, if fitted for his office, would have such a general knowledge of all the specialties as would enable him to decide promptly upon the necessity for special treatment in any case that might arise. Such a necessity existing, he would be the first to suggest the employment of a specialist, and his knowledge of the different men available would enable him to select the right one. To the specialist he would give a full history of the case and of the previous treatment, and there being perfect accord between them, the special treatment would go on in harmony with the general management. There would be no clashing, no jealousy, each one recognizing and respecting the province of the other, and thus the best attainable results would be secured. This would be a long step forward in preventive medicine, in the sense of preventing the serious consequences which flow from the lack of such co-operation between the family physician and the specialist."

Now these are earnest words, and they are thoroughly honest and correct sentiments in addition. They imply, however, a somewhat radical change in the office of the family doctor himself; and it is here the medical adviser of the present and future will possess the opportunity of showing what the new science has done both for him and his patients. He must be more scientific in respect of his work than was the family physician of old. He must recognize more fully Mr. Galton's idea of making the study of his "families" a matter of exact detail. His must be the knowledge of the practitioner of fifty years ago, aided and enlarged by all the later ways and means which scientific medicine has placed at his disposal for the investigation of disease. He would, in a word, be the guardian of each family's physical welfare, in that he would not only be able to cure disease—with or without the help of the specialist—but would anticipate ailments, and warn his patients of the risks to which their dispositions or inherited tendencies laid them open.

Dr. Smith says in this connection that the family physician would make "a thorough physical examination of every member of the family at least twice a year, and in the case of a feeble or delicate person at much shorter intervals. The results of these examinations should be fully recorded, and the record kept in the possession of the doctor, to be transmitted to his successor. A record of this kind would possess immense value, not only for the persons immediately interested, but also for their posterity. It is by knowing the vital history of the parents that we know what to expect in the children. Heredity is an influence which it is difficult to estimate, for the reason that the absence of records prevents our tracing it backward in the family history. Yet we know that this influence may shape the physical destiny of generations to come. Dr. Holmes has said that the proper time to begin the treatment of some diseases is a hundred years before the birth of the patient. He might have added that the treatment sometimes needs to be continued for a hundred years after his death."

"But the opportunity," he adds, "afforded to the family physician to ward off injurious influences from those under his care might be extended much farther. It should be within his province to indicate what occupations were suitable to a given youth, and what, in the interests of his health, should be avoided. He should be able to prevent a feeble, ill-nourished, narrow-chested lad being put behind a desk in a counting-room, where the tendency to pulmonary disease already existing would certainly be developed. He should have such a voice in the selection of boarding-schools as would prevent the children being sent to institutions in unhealthful localities, or in which there was danger from defective sanitary precautions. In the selection of a new dwelling, and even in choosing a summer resort, his judgment as to the topography and the sanitary conditions should have a controlling influence. His supervision should extend to a proper adaptation of educational methods to the capabilities of the several children of the family, and to the order in which their faculties develop. On this latter point it is high time that the influence of medicine should be felt in pedagogics. Mental physiology should lie at the foundation of every school curriculum. It is incongruous that at this age of the world the development of the mind should be entrusted unreservedly to those who have not even the most elementary knowledge of the mind's organ, the brain."

If, to this view of the duties of the family doctor of the future, some reader should remark that the functions of the physician would come to resemble those of the Chinese doctor, who is paid only so long as his patient keeps well, I would reply that this arrangement, in all probability, would prove a most excellent one, after all is said and done. Surely, prevention of disease is better far than its treatment; and it would be, in truth, as logical a thing to pay our doctor for saving us from the risk of disease, as to remunerate him for his skill in curing an ailment which has been allowed to establish itself in our bodies. The real value of the attitude of the family doctor of the future to his patients would consist in the fact that, not only would he be fully equal to the prevention of disease, but he would also be the better prepared by his intimate knowledge of his patients for the successful treatment of their ailments.

Who can tell how many cases of consumption, of epilepsy, of scrofula, and of other constitutional disorders allowed, as things are, to run on in families, unchecked by medical skill—and, what is worse still, propagated onwards to generation after generation unheeded and unminded—might have been prevented or modified by the family physician, accustomed scientifically to note the health of his patients as we have advocated? The great glory of medicine should be found, in truth, in this doubly preventive and curative phase.

Dr. Smith's words form a fitting close to these thoughts about the family doctor: "It belongs to the office of the family physician to know fully the medical history of the family; to keep himself constantly informed as to the physical condition of each member; to advise as to education, choice of occupation, residence, and whatever else may have an influence, present or prospective, upon conditions of health; to apply all the means which science affords for the prevention of disease; to treat such cases of illness as may arise, employing freely the aid of specialists whenever necessary; and, lastly, to

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regard the experience which he accumulates as a trust to be used for the benefit of the public in initiating and furthering such measures as will advance the physical welfare of the community.

"That this enlargement of his sphere will demand greater capacity and increased powers on the part of the physician goes without saying. But the rising generation of medical men, in this country at least, is furnishing many who are fully equipped to meet this demand. Every year the standard of medical education is higher, and the profession has now in its ranks numbers of young men whose peers it would not be easy to find in any other body. In their hands the office of the family physician cannot fail to become every year more useful and more honoured, until it shall stand first among the secular influences which promote the welfare of the race."

Fond Mother: "Jane, give the baby some laudanum and put it to sleep, and bring me my parasol. I am going to a meeting for the amelioration of the condition of the human race."

Bacteria in the Glaciers.—Dr. Schmelk, of Christiania has found vast colonies of bacteria in the ice of the Jerstedalsbræ glacier and in the streams fed by it. They appear under the form of rods, and resemble the *Bacillus fluorescens liquefaciens*. During their period of growth these bacteria emit a fluorescent material. They multiply with great rapidity during periods of thaw.

Dr. Lettsom recorded the case of a man who took twelve drams of spirits daily, but having determined to wean himself from this practice, he adopted the following expedient. He always drank from one glass, into which he let fall a large drop of sealing-wax after taking each dram. In this way he gradually reduced the quantity of spirit consumed, until at last his glass became filled with wax, and the habit was eradicated.

In England and Wales diarrhœal diseases annually carry off more than 14,000 persons, more than 9,000 of whom are infants under one year of age, and more than 12,000 are children under five. A very large proportion of these deaths are entirely preventable, and their causes have often been set forth; such as improper feeding, want of cleanliness, irregular hours, the employment of women in factories, and so on. In other words, ignorance and want of care on the part of parents and nurses. Doubtless all these are contributory causes, but recent researches, and especially those of Dr. Tomkins, of Leicester, have shown that more specific causes must be sought for if we are to account for all the facts. For instance, why this fearful mortality should chiefly be compressed within one or two summer months, when the weekly mean temperature exceeds sixty degrees F., and why certain towns, such as Preston and Leicester, should be especially subject to the scourge. It would be important to obtain more information than we at present possess as to the relative mortality from this disorder, of children at the breast and hand-fed infants, and it would not be beyond the reach of investigation, whether the practice of boiling the milk used by children diminished the mortality. The microbe theory of its origin would be materially affected by such a research, especially if it were accompanied by other inquiries into the possible sources of milk contamination. This, again, is a matter that could be settled by the well-organized combined observations of medical officers of health, sanitary inspectors, district nurses, mission women, and other district missions.—*Dr. Ransome.*

Personal Health

"Be timely wise;
With health all taste of pleasure flies."—*Gay.*

RULES FOR THOSE WITH WEAK KIDNEYS.

1. Always keep the feet dry.

2. Keep the skin in the best possible condition by bathing, rubbing, &c., in order that it may relieve the kidneys of as much work as possible. (Remember that one-fifth of all the water leaving the body in twenty-four hours passes out by the skin.)

3. Wear flannel next the skin, night and day, winter and summer.

4. Do not live in a damp house or in a cold, damp climate. A hot, dry climate is the best for the subjects of Bright's disease.

5. Do not indulge in alcoholic beverages. Their action proves destructive to the tissue-structure of the liver and kidneys when they are taken.

6. Do not partake too freely of meat, which is not all burnt up in the body, as some suppose, but is excreted as urea by the kidneys. Meat once a day is probably sufficient.

7. Do not use much coffee, tea, tobacco, spices, &c. They seem to exert a prejudicial action upon weak kidneys.

8. Avoid drugs like opium, mercury, and cantharides, the use of which in all forms of Bright's disease is fraught with certain danger.

9. Sleep in an airy room, preferably facing the south; and live out of doors in the warm sunlight as much as possible. Take plenty of sleep.

10. Avoid over-work and worry, and be scrupulously regular in all the habits of life.

11. Always keep the functions of the bowels right.

12. Remember that the two great remedies for kidney-troubles are (*a*) iron and (*b*) milk. The grape-cure (the free use of grapes) has produced good results.

13. The form of iron which should be taken is to be determined by the state of the stomach. If this organ be weak, Wyeth's Dialysed Iron, in ten-drop doses, should be taken. For strong stomachs, the perchloride will answer.

14. Bear in mind that before it is digested, cow's milk curdles, and that the curds are often the source of much discomfort and trouble. Moreover, milk tends to constipate. The addition of a little Kepler Extract of Malt prevents the curdling and constipation, and makes the milk more nutritious. This is a capital combination for all weak stomachs.

15. Bristowe says:—"The patient's diet should be nutritious, but light, easily digestible, and consist mainly of milk and farinaceous substances. Alcohol in any form is rarely needed, and generally likely to be injurious."

16. "If urœmic symptoms (those of blood-poisoning) supervene, active purgation by means of elaterium (squirting cucumber), compound jalap powder, or some other form of drastic purgative, should be employed."

17. Perspiration by various means, Turkish baths, &c., is of very great value, but should never be prolonged to exhaustion.

18. When the food occasions some gastric disturbance, Pepsin Tabloids—one after each meal—should be taken. When it is badly tolerated and often vomited, predigesting

it by the addition of a little zymine will frequently render it acceptable.

19. Diuretics, and all medicines designed to act upon the kidneys, should never be resorted to, unless by the advice of a medical attendant.

20. Water is the best and safest agent with which to wash out and clear the plugged-up renal tubes. Mucilaginous drinks (linseed-lemonade, &c.) are likewise safe.

21. In cases of renal (or kidney) dropsy, when everything else has failed, a teaspoonful of cream of tartar in half a glass of sweetened water may clear a waterlogged patient in a few hours. The action is sometimes miraculous.

22. In cardiac (heart) and renal (kidney) dropsy, the compound diuretic pill may answer. If not, Strophanthus Tabloids, administered by a physician, hold out the surest hope of safety.

UNHEALTHY SKINS.

No unhealthy skin can be attractive, and may be most repulsive to the sight. Few people consider how easily the skin is affected. A thought may blanch the cheek or suffuse it with a blush. A day of care may visibly darken it. "The rays of the sun, a mustard plaister, in fact heat in any form, or indeed irritation without heat, such as a blister, will increase the dark-colouring matter. Even through his thick clothing, the furnaceman's skin, exposed to intense heat, though shielded from light, becomes completely bronzed." Illness or weakness causes the skin to become pale and clammy. Who has not taken the cold, clammy hand that felt like death? Indoor life is almost the surest thing to pale the face, and the sun is the surest thing in creation to paint it with a healthy hue.

There is another point. Dr. Malcolm Morris says: "The structure of the skin—with its system of drainage into the free air, whence as a minor lung it absorbs oxygen—with its nerves dependent for stimulus on the friction of the air, seems to assert the intimate relation man should maintain with the external world, and to point to the fact that nakedness is his natural and designed condition. The ancient Britons, who were unclothed, proved that even our climate, with its many vicissitudes, could be endured in such circumstances by a people trained thereto from birth. Even much colder climates afford similar examples of the powers of resistance with which the skin is provided. The only garment of the inhabitant of Tierra del Fuego, at Cape Horn, is a hide hung over the windward shoulder, and the children wear nothing whatever, though their country is far colder than ours. All this seems to show that the human skin, when unassisted by external coverings, is capable of developing powers of self-preservation to meet all conditions of life." The negro's skin is said to be thicker than that of a white's, and yet to the touch it seems more velvety and less wrinkled. Ordinarily, the thicker a skin is, the less elastic it will be. In health, too, the skin is very elastic. "In youth, the natural elasticity is at its best, and lines and wrinkles are very speedily effaced. As years increase and health declines, they leave their marks behind them." Fresh air is a splendid preservative and restorative of the skin.

Few, very few indeed, know how to properly take care of the skin. Town life, with its dust-laden air, necessitates frequent washings with soap and water, the action of the soap being to extract the oil from the skin, and so dry and shrivel the tissue, and predispose it to wrinkles and eruptions. Not only so, but the oily film upon the skin is the very best protective from the evil effects of wind and air. When the oil is withdrawn, the horny layer of the skin deteriorates. The ancients used to anoint the skin, and that frequently, and especially after washing. The value of cream is recognized even in our time, but, of course, it soon "turns." Vinolia, the new plastic, emollient cream, is a pure and elegant nutrient and tonic for the integument, and a most delightful balm. Its curative properties in eczema and acne, and for itching, are worth remembering. It may be used freely and with perfect safety on the tenderest of skins. We saw a gentleman the other day who was cured of a most unsightly form of acne of years' duration on the face.

"RECIPES FOR MAKING GOUT."

Under this title a contemporary having exhausted, and it infers without avail, its best advice as to the prevention of this dread malady lays before its epicurean readers some specimen compounds peculiarly adapted to develop gout in those previously free, and to excite its most virulent symptoms in the already afflicted. It has medical authority for its promise that the recipes it gives are really among the most exciting causes yet discovered in scientific or even what might be called haphazard cusine; taking no account of the lesser causes, no doubt crediting the gouty with sufficient intelligence to foresee the effect upon the metatarso-phalangeal joint of the great toe of the midnight lobster and after-dinner port.

It introduces a certain Dr. Hunter, whom it seems to regard as an authority on gout, and one can almost see a testy little doctor, rotund, red-faced, short-winded, with good living, and knowing his subject from sensation as well as study, as he takes up a famous cookery manual and reads: "Giblet soup, *par excellence*: veal stock, lemons, yolk of egg, forced meat balls, and Madeira." This, he says, contains a considerable amount of gout and scurvy. Of an unusually rich mock-turtle soup he says: "A dangerous dish, and will soon bring a man to his crutches." Another of the same he declares most diabolical,—only fit for the Sunday dinner of a rustic who is to work the six following days in a ditch bottom; while of a third, mock-turtle soup made with beef, ham, giblets, lemon-peel, truffles, eggs, orange-juice, forced meat, and Madeira,—a dish much admired by the patrons of a famous London restaurateur,—the doctor says, testily: "There is death in the pot."

It has often been observed of those afflicted with gout,—the tone of the letters addressed to the society journal in question furnishes still another evidence of it,—that they appear more concerned to discovering new remedies to lessen the pain when they shall be again attacked than in adopting a practical means for preventing its recurrence. They try colchicum, soothing topical applications, acetate of potash and other alkalies, and perhaps nitro-muriatic acid, the latter for supplying the oxygen necessary for the conversion of the excess of uric acid from which they are suffering into oxalic acid, and the latter into carbonic acid and urea,—always with the hope, so it would seem, of accomplishing by chemistry what regular habits, air, and exercise would ordinarily yield.

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Public Health

"Health is the first Wealth."—*Emerson.*

THE PREVENTION OF TYPHOID FEVER.

By R. Harvey Reed, M.D.

Secretary State Sanitary Association, and Health Officer, Mansfield, Ohio.

I shall never forget, when a boy attending school in the old district schoolhouse, when my teacher (one of those tall, lean, lank old maids) demonstrated to the class the meaning of an axiom, which, to my surprise, seemed so simple that before I thought I exclaimed: "Why any person ought to know that;" for which offence I was sentenced to the corner, with my face toward the wall, for one hour.

I have never felt so much inclined to repeat that expression from that time to this as I did when a medical friend of mine some time ago invited me to write a paper on the subject of typhoid fever being a preventible disease; but, for fear that I would have to stand with my face in the corner, I concluded that silence should prevail. As the first rule in the military service is to obey orders, I, as a volunteer in the army of physicians in Ohio, decided to obey the command, lest there might still be some one in the great state of Ohio who is not yet aware of the fact that typhoid fever can positively be prevented by proper sanitary care.

I shall not attempt to go into the "fifteenthlies," however, to prove to you that typhoid fever is a preventible disease, even if you were exceedingly fond of long, dry papers; but you will have to be content this time with my asserting a few facts, and then leave the matter with you to decide hereafter whether I have told you the truth or not.

Now, for fear there is some one present to-day who does not clearly understand, by experience or otherwise, what typhoid fever is, we will just briefly define what we mean by this familiar term.

Typhoid fever is an acute febrile affection, particularly characterized by stupor and low muttering delirium, accompanied with diarrhœa and a peculiar eruption of the skin, and thickening and ulceration of certain glands located in the walls of the intestines, known as Peyer's patches.

It is undoubtedly a contagious disease, being capable of direct or indirect communication from one person to another through a proper medium, such as water or milk, but not a strictly infectious disease like small-pox, measles, or scarlet fever, and not so likely to spread by contact with the air of the sick chamber as the above diseases.

It is caused by the swallowing of a germ peculiar to typhoid fever, and known as Eberth's bacillus. This germ usually finds its way into wells, springs, rivers, and creeks which are used as a water-supply, or through the washing of vessels with contaminated water into milk, and in this way is swallowed, and produces typhoid fever by rapidly multiplying when taken into the alimentary canal, where it seems to thrive best; and, through its peculiar irritation to the intestine, produces ptomaines which are absorbed, and cause the symptoms of this loathsome disease.

While its most common and favourite medium of communication from one person to another is water or milk, it is possible to be communicated by the air. For instance, this germ may become so dry as to be picked up and floated on the air, and thus find its way into the mouth and alimentary canal; yet it must be remembered that the simple inhaling of this germ into the lungs will not produce typhoid fever. To accomplish this, it must be swallowed and enter the alimentary canal—the sacred Aden of all typhoid-fever bacilli.

But, you ask me, how do these germs get into the drinking-water?

One of the most common ways is the careless disposal of the ejecta from typhoid-fever patients, which are often thrown upon the ground or in old, leaky privy vaults, and in this manner find their way into wells or other sources of water-supply, and are thus conveyed to those who drink this contaminated water.

You must not imagine that filtration through the soil destroys this active little germ; it is not so easily destroyed.

The experiments of Lausen, where the water had been filtered through a mile of earth without sterilizing the germs contained in it, seems to prove without a doubt that the poison of typhoid fever may undergo what would appear to be very efficient natural filtration without losing its vitality.

Deep wells cannot always be trusted, or looked upon as a safeguard against typhoid fever, as was clearly proven by the Dudlow Lane well, near Liverpool, England, which had a total depth of 443 feet, yet was fouled by percolation from cesspools.

Surface wells, surrounded by cesspools, or stables, hog-pens, manure piles, sewers, or any kind of surface filth, in all stages of decomposition, are still more dangerous and objectionable.

The vitality of this active little germ is remarkable, when we know that Pruden succeeded in resuscitating them from ice, in which they had been frozen for 103 days; we are led to shun the ice our forefathers taught us would purify itself by freezing, lest it prove a luxurious source of poisonous infection. On the other hand, the same investigator resuscitated these same germs after having been heated to 133 degs. Fahr., which teaches us that nothing short of boiling our ice and drinking-water thoroughly will insure protection against typhoid fever, in case there is the least suspicion of its contamination.

Do not mistake what I said in regard to contaminated milk, meaning that the milk was contaminated with typhoid-fever germs as it came from healthy cows, as that is not the case; but your milkman may wash his cans with infected water, and thus convey the germ to the milk, which, under certain circumstances, favours the rapid growth of these bacilli, which, in this way, may be communicated to his patrons, and start an epidemic of typhoid fever.

I remember, when a student, listening to Professor Stillé, of the University of Pennsylvania, relate an instance of this kind; when a severe epidemic was distinctly traceable to the patrons of a certain milkman, who, on investigation, was found to have washed his milk-cans in contaminated water from a well near his stable, that had long since been abandoned for house use.

The use of milk from diseased cows may, however, cause an epidemic of typhoid fever, as was the case at Carlisle, England, where a sudden outbreak of this fever sprang up among the users of the milk from a certain dairy, which, upon investigation by the medical officers of health, proved to be caused by using the milk of cows affected with an infective fever.

Again, milk kept or cooled in foul cellars, or in rooms supplied with foul air from sewer emanations or privy

vaults, will readily absorb these germs and act as a fertile source for the spread of a typhoid-fever epidemic.

As I said in the beginning, that typhoid fever is a preventible disease is clearly a self-evident truth.

I am not exaggerating when I say that thousands upon thousands of cases could be produced to prove this sweeping assertion.

Only the first of last September, a year ago, such an instance occurred in the practice of Dr. McCall, of Lapeer, Mich., when a railroad *employé* came from the South, sick with a fever, and stopped with his father and mother. No care was exercised with the stools in the way of disinfection; but they were thrown into a privy vault in the rear of the house, and in close proximity to the well.

The doctor says: "Wash-water was thrown on the surface of the ground, which was very dry at the time. About the 7th or 8th of September a copious rain fell and soaked the sandy soil, and on the 14th his father, mother, and a brother (who was a student in my office, and who boarded at home) were attacked with fever.

"On this day I got home from Washington, and found four of them down with a severe type of typhoid fever, and in two weeks his wife and child were attacked, also a child across the street, who had used water from the same well.

"None of the people from either of these houses were in the contaminated house. In a house still farther south one case has occurred, and I was at a loss to account for this case till a few days ago, when the young man said that at the mill where he was working they had used the same water for a few days, owing to disarrangement of the pump at the mill.

"Two others of the mill hands who used the same water were attacked about the same time.

"One is now convalescent and one is dead, as also one of the children.

"When I took charge of the cases, I ordered the discontinuance of water from the well, the disinfection of the stools, and no new cases are now reported.

"People who assisted in taking care of the sick, and who use water from other sources, have not been attacked."

Clearly, the railroader brought the fever home; the well became infected, after the first rain, from slops and privy vaults, and the other cases got their seed from the water.

(To be concluded.)

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Popular Science Papers

"Blessings on Science! When the Earth seemed old,
When Faith grew doting, and our reason cold,
'Twas she discovered that the world was young,
And taught a language to its lisping tongue."

—*Charles Mackay.*

CURIOUS TEETH MUTILATIONS.

Ethnologists who have minutely described the mutilations exercised on their teeth by the savages or barbarians of the Old World, have said nearly nothing in return about the same order of practices existing in the two Americas at the time of their discovery. M. H. de Ihering, the last person who occupied himself with these curious questions, has given in detail the facts he collected concerning the peoples of Central Africa. He gives us much information regarding numerous jaw-bones from the Indian Archipelago; but when he approaches the examination of tribes in the New World he makes no mention of certain teeth-extractions noticed at Peru by a certain number of authors, from the time of Cieza de Leon to that of Barnard Davis; or the pointing of the incisors (or front teeth) mentioned by Tschudi, &c., in the Isthmus of Panama, at Brazil, and elsewhere.

The paucity of information gathered by the German

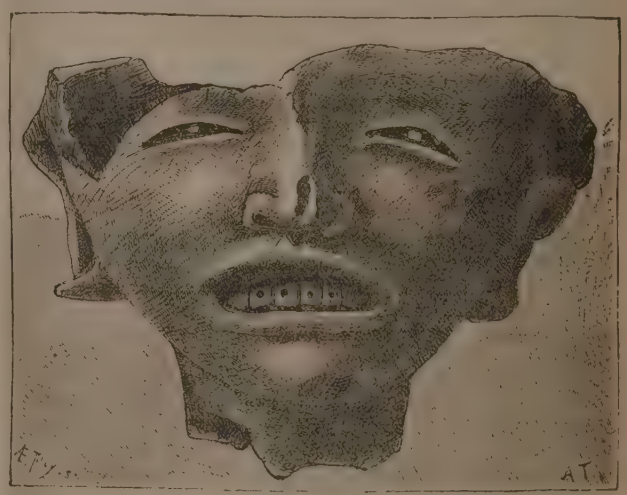

Fig. 1.

author is due no doubt in a certain measure to the little favour with which he views the teeth mutilations by the Indians of the New World. It is proved that those people who perforate and deform, to a truly extraordinary degree, the lips, nostrils, and ears, carefully guard and preserve their teeth. But we also see that the scarcity of information which is so striking concerning America in the writings of M. de Ihering is in part owing to the negligence of the author, who is content to extract from some modern works a few second-hand remarks, without giving himself the trouble of original research, which would not have had this defect.

He has thus passed over the filing of the teeth to the gums, which Vancouver mentions as practised by the Indians of Trinidad Bay. He says nothing of like practices observed by M. Petitot among the Esquimaux at the mouths of the Mackenzie and Anderson rivers. Finally, he has read nothing which concerns the teeth mutilations in usage at other times in Mexico and

Yucatan, of which Sahagun, Landa, Motta Padilla have, however, furnished information of very precise kind. It is this last gap I seek to fill up in relation to the authors already cited. Of these details we give drawings and strongly marked examples.

From Diego de Landa, who wrote in the second half of the sixteenth century, we learn that the Indians of Yucatan were in the habit of cutting their teeth like a saw—a habit which they considered gave to them a mark of beauty. Old women performed this operation with a certain kind of stone, aided by water to prevent excessive friction. Many years after the Spanish conquest, the same custom was met with in the province of Pannco, but Motta Padilla, from whom we borrow this information, adds that not only do the Indians cut their teeth into sharp points, but they also scoop holes in the teeth, and fill them up with a black-coloured cement. Sahagun had long before Motta Padilla pointed out this double mutilation as making one of the characteristics of the Cuextacs or Huaxteques — that is to say, the direct ancestors of the Panotecas contemporaneous with Motta Padilla. The Huaxteques migrated with the Totteques. They separated themselves from the other peoples descended from Tollan owing to internal quarrels. An

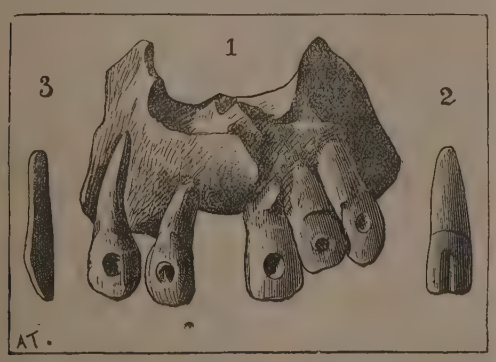

Fig. 2.

ancient legend, preserved by Sahagun, still exists with puerile particulars of this quarrel. Among the most antique collection known at present of Tolteque civilization in the Archaic cemetery of Cierro de las Palmas, is a skull which shows on the incisors and canines (or eye teeth) of the lower jaw the mutilations which Sahagun mentions.

This skull is now placed in the Paris Museum. The deformity it presents is exactly the same as that of the Tolteque skulls, and has the same mutilations on the lower jaw described by Sahagun, who attributes this double practice to the Huaxteques. It is easy to recognize that the incisors and canines have been attacked on their internal angles with a hard cylindrical body. The filed surfaces are, in fact, regularly polished, and are clearly concave. The cavities thus formed from the loss of substance measure not less that from two to four millimètres in depth. The lower jaw in this case is alone operated on; the upper jaw is perfectly intact.

One thus sees from the skull found in a sepulture of the Huaxteques previous to the conquest proof of the dental pointings mentioned by Sahagun and Motta Padilla. In the excavations among the ruins of Tejar, near Medellin, there was discovered a fragment of the head of a statue in baked clay, which combines the flattened skull of the Tolteques and also the dental perforations which Sahagun attributes to the Huaxteques. Figure No. 1 represents this curious relic; the half-open mouth shows the upper incisors perforated with regular cylindrical holes, having about three millimètres diameter and one millimètre depth.

The excavations carried out in the state of Campêche during the French occupation have led to the discovery of a fragment of an upper jaw, showing a mutilation nearly identical to that of Tejar. This fragment, which comprises the frontal part of the face nearly entire, was found, with some very small figures of good work, in a tomb outside Campêche. It would be rash to fix the date even approximately, but there is no doubt that it is anterior to the Spanish occupation. Fig. 2 represents the dental arch of the subject in its actual state; the internal face of the incisors and canines is cleverly hollowed towards the centre of the tooth. The holes measure three millimètres diameter, and in them have been inserted hard stones of a greenish-blue colour called "turquoises" by Dr. Fuzier, the visible part of which is regularly convex, and has a beautiful polish. Two stones have disappeared from their sockets, one from the right canine and the other from the left middle incisor. It is easily seen that the perforation, which has a depth of one millimètre, has been performed with the aid of a punch similar to those employed in all regions before the conquest to excavate diorite serpentine or rock crystal. The piercing done by rotating a hollow cylinder and a little powdered silica is a slow process. It is easily conceivable that so prolonged an operation can be practised with exceptional success on the living individual.

The attentive examination of Dr. Fuzier's relic, which will be soon exposed in the Anthropological Museum, proves very clearly that the work described has been done after death. No pathological or diseased alteration shows itself in the neighbourhood of the teeth perforations. Whether practised on the living or on the dead, the mutilation is exactly the same at Tejar and Campêche as that practised by the ancient Huaxetque and the old Maya. This striking resemblance, added to many others, shows once more the original unity of those two peoples. This is not the place to develop the numerous arguments which science now possesses in favour of the common origin of the Huaxteques and Mayas. I therefore confine myself to recalling the established affinities between the two languages of these populations, which forms, with that of the Quiches, one grand linguistical family.

We know nothing of the mutilations in usage by the other ancient inhabitants of Yucatan and Mexico. The Chichimeques are as little known to us, from this special point of view, as are their predecessors; and we should have been as meagrely informed of the mutilations practised by the Aztecs, if a curious discovery, made by M. Eug. Boban, at Tepito, in the Valley of Mexico, had not brought before us a very special type. In the excavations of the above-named observer a necklace of gold teeth was discovered, only one of which was saved from the melting-pot, and makes part of the collection acquired by M. Pinart from M. Eug. Boban, and recently incorporated in the Echnographic Museum at the Trocadero in Paris.

This tooth, which measures twenty-four millimètres long, eight millimètres broad, and four millimètres in thickness, is made of thin leaf of the precious metal. It weighs only 1·4 gramme (nearly sixteen grains English). Two holes, pierced transversely, serve to fix it to the neighbouring pieces, perforated in the same manner. The front view, represented in Fig. 2 (side view No. 3), has a large furrow, one millimètre, towards the cutting edge of the tooth, which contracts and diminishes in

depth simultaneously, and disappears. An extent of about six millimètres long represents exactly the loss of substance which would result from the filing of the natural tooth. I have vainly sought among the numerous heads in baked clay and stone, which are in the Echnographic Museum at the Trocadero, for a second example of a like mutilation. The catalogue of Mexican antiquities in the Louvre, published by A. de Longperier, includes no indications of a similar nature; nor have I remarked any pieces of the same kind in foreign collections which I have been permitted to visit.

The numerous Spanish writings, particularly about Aztec customs (Tepito was an Aztec village), furnish no information which supplies this absence of archæological documents. It is therefore premature to draw any conclusion from facts I have made known. This kind of mutilation is not seen in any other parts of the Old or New Worlds. The only practices which at all resemble it are those proved to exist at Cabinda, on the west coast of Africa; but the negroes of this region confine themselves to cutting the free edge of the incisors, without touching the face of the tooth.

Travellers mention no tooth mutilations anywhere among the actual populations of Yucatan or Mexico. In no place, however remote from civilization, are those practices continued. It is consequently better to assume that they have left traces in some writings little read, and some few relics as yet unknown. I believe, likewise, that one can draw from the comparison of those singular documents conclusions which are not without interest for the study of the ancient relations of some ancient groups of men belonging to Intertropical America.—*Translated from "La Nature" for* Health *by P. H.*

The *Deutsche Handels-Archiv*, the official commercial publication of Germany, in its last issue, discusses the reasons for the small consumption of tea in that country, and comes to the conclusion that the enormous retail price is the main cause. It thinks that the spread of tea-drinking in the country is greatly to be desired; but this is impossible as long as the retail dealers persevere in charging the present excessive prices. It instances the establishments in the West End of London, where the average price for tea of medium quality is 1s. 6d. per pound, including the heavy English duty of 6d. per pound, and the finer sorts may be obtained at 2s., while in Germany the retail prices begin at 3s. a pound for the poorest qualities, and go up to 9s. For German retail dealers it would seem that the large and universal fall in the prices of tea in the last twenty years has never existed; yet in England the tea that was 2s. 6d. a pound in 1866 was 2s. 1¼d. in 1876, and is now 1s. 6d. a pound.

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Jottings from the Journals

"Th' ingredients of health and long life are
Great temperance, open air,
Easy labour, little care."—*Sir Philip Sydney.*

Infection in Churches and Schools.—According to Dr. Russell, medical officer of health for the city of Glasgow, there exists an apparently definite connection between church attendance and the conveyance of infectious disease. The evidence brought forward by him in support of this view is somewhat interesting. It appears that among the congregation of a Gaelic church comprising a number of Highland servants and others, forty-two persons were taken ill with measles during last January. Of these, one showed signs of the disease on Jan. 3rd, eleven between the 6th and 13th, and five on the 14th. Between the 14th and 19th one fresh case occurred, while between the 19th and 25th no fewer than twenty-two became affected. In the remaining two cases the disease appeared on the 26th and 27th. Dr. Russell suggests very plausibly that if twelve to fourteen days be reckoned as the incubation period in measles, the date of primary contact with infection might for the first group of cases, comprising the two series of five and eleven, be fixed at Dec. 30th (Sunday). Obviously this calculation would accurately suit the case of those in whom the attack began on Jan. 14th. The infection of the second large group he explains as being due to the attendance in church of persons already in the catarrhal stage on the two following Sundays, Jan. 6th and 13th. As a matter of fact, two girls were in attendance on December 30th and January 13th respectively, and one of these had come from an infected house, while the other had actually taken the disease two days before. Another curious fact is that two other girls who usually worshipped elsewhere, but were in this particular church on the 13th, became ill on the 26th. Of course, there is some room for possible error in statistics of this kind, but the facts as tabulated, it must be allowed, give some colour to the interpretation put upon them. Whatever their accurate significance, however, the proved attendance of two persons capable of spreading infection is in itself a noteworthy point. Such occurrences, we fear, are not rare. To some extent they may even be unavoidable, but we need not add that wilful or careless neglect in this particular implies for the offender a serious responsibility for possible consequences. It should be a standing rule that the existence of contagious disease in a house, unless something like perfect isolation and disinfection can be guaranteed, and preferably even then, debars the healthy members of the household from attendance at school, church, or other place of concourse. Should business or obvious duty interfere with such an arrangement, personal disinfection on the part of any possible medium of communication should be insisted on. Among the well-to-do it is not very difficult thus to limit the spread of disease; but among the overcrowded poor every precaution must be strained in order to arrive at bare security.—*Lancet.*

◇ ◇ ◇

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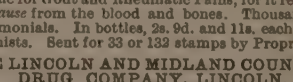

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cide, and yet, even in large doses, altogether harmless to man. These qualities made it appear to me an ideal remedy for the preventive and curative treatment of infectious throat troubles. Adults can use gargles of the ordinary poisonous antiseptics, like the bichloride of mercury; but for children something is needed which can be safely swallowed. Soon after I had read Dr. Eisenberg's article, I procured a supply of the creolin, and have since used it to the exclusion of other local applications. My success with it has been very pleasing indeed. In treating infectious throat troubles, I now always put, not only the patient, but also all the well members of the household, on the creolin treatment. Thus I have prevented, I think, diphtheroid sore throat from going through entire families of children, which it had previously, under other modes of treatment, always done. But it is as a preventive of true diphtheria that I expect most from the creolin. Dr. Eisenberg's experiments show that no form of pathogenic germ can resist its action; and it is, therefore, reasonable to suppose that the germ of this disease will also succumb to it. Recently I was called to see an old lady, who, a day or two after exposure to a case of diphtheria (proved to be so by paralysis occurring several weeks afterward), was taken sick with rigours, fever, and sore throat. Almost simultaneously her daughter and son-in-law were taken in the same way; but her little grandchild, a boy of four years, showed no signs of the disease when I was called. I at once, however, put him, as well as the others, on the creolin treatment. The child, although always rather predisposed to throat and bronchial trouble, escaped an attack altogether, and his parents and grandmother recovered promptly. Diphtheria is certainly one of the most dreadful diseases that confront us, and any treatment that might reasonably be expected to prevent its spread should be given a trial. I am inclined to believe that if the mouths, throats, and nasal passages of children were kept as clean as their faces, there would be much less of the disease. When diphtheria prevails, no child's toilet should be considered complete until the upper air passages have been thoroughly douched with some suitable antiseptic; and in the long list of such agents, I know of none that fulfils the requirements so well as creolin. The Jeyes' Disinfectant Company are the makers of creolin.—*Medical Record.*

Origin of the Cigar.—The origin of the word cigar is of some interest, and is not to be found in the ordinary dictionaries. The word, of course, is Spanish; and Littre, in his French dictionary, says that it is derived from cigarra, the Spanish name for grasshopper. When the Spaniards first introduced tobacco into Spain from the island of Cuba, in the sixteenth century, they cultivated the plant in their gardens, which in Spanish are called cigarrals. Each grew his tobacco in his cigarral, and rolled it up for smoking, as he had learned from the Indians in the West Indies. When one offered a smoke to a friend he could say, "Es de mi cigarral,"—it is from my garden. Soon the expression came to be, "Este cigarro es de mi cigarral,"—this cigar is from my garden. And from this the word cigar spread over the world. The cigarral, for garden, comes from cigarra, a grasshopper, that insect being very common in Spain; the cigarral meaning the place where the cigarra sings. In this way the word cigar comes from cigarra, the insect, not because it resembles the body of the grasshopper, but because it was grown in the place it frequents.

Our Bookshelf

"Reading maketh a full man."—*Bacon.*

BOARD SCHOOL VOICE TROUBLES.

Board School Laryngitis. By Greville Macdonald, M.D. (London: A. P. Watt, 2, Paternoster-square, E.C.)

This is a pamphlet which should be attentively perused by all medical men and by all teachers as well. "Laryngitis" is the medical name for inflammation of the larynx, or organ of voice and its structures; and Dr. Macdonald (who is physician to the Throat Hospital, Golden-square, London) has most appropriately, we think, directed attention to a form of disease the nature of which may be ranked as of great importance to the teaching profession.

We quote what Dr. Macdonald says of the symptoms of the affection he describes:—"Diseases seem to multiply as the relations and conditions of society grow more complex. Many occupations, indeed, appear to induce certain morbid conditions peculiar to themselves. One of the latest exemplifications of this is evinced by the profession of teacher in our public elementary schools. For the last three years certain peculiar affections of the vocal organs have been occupying a large amount of my attention at the Hospital for Diseases of the Throat. A patient frequently presents herself complaining of voice-fatigue, hoarseness, &c. Without any further information as to occupation, a laryngoscopic examination is sufficient to acquaint me with the fact that she is a Board School teacher;* and so peculiar is the affection to this class—so different is it from the throat-troubles of other professional voice-users, that I feel justified in assigning it the title of Board School laryngitis. Having given special thought and attention to these patients, and having had some measure of success in treating them, I find they consult me in increasing numbers. These circumstances, together with the conviction that there must be many more who do not seek advice early enough for successful treatment; and in face of the immense importance to national education of questions to which this Board School laryngitis gives rise; have induced me to state and publish an account of my own observations and convictions in this matter.

"Board School laryngitis is essentially an aggravated form of chronic congestion of the laryngeal mucous membrane. The special conditions under which it is developed are twofold, viz., general and local. Among the former we have overwork, air reeking with the stench of the pupil's dirty skin and clothes, and often great vicissitudes of temperature caused by overheating and faulty ventilation. Add to these the ceaseless mental strain and worry in temper experienced by every class of school-teacher; and especially by those employed in the Board School, to whom there remains none of the usual facilities for correcting insubordination; and we can readily account for the anæmia so prevalent among them."

The causes of this malady, so fatal to all comfort of life and to educational service, Dr. Macdonald sets down as faulty use and over-use of the vocal cords by the vibration of which voice is produced. He refers to the large size of the classes in London Board and National

* For the sake of brevity, the word *Board School* is used as [illegible] all elementary schools, whether Board or Voluntary.

Schools. Seventy and eighty pupils in a class form a common number, and one of his patients has 120 to teach and correct, the average age being seven years. Again, more than one class may be taught in the same room, and when a school is placed in a noisy thoroughfare, it is clear the strain on the teacher's voice must be of excessive kind. There is, further, no rest or respite for the teacher, and he (or she) is compelled to use the voice when a singer or public speaker would be able to enjoy rest and repose.

Chalk-dust, our author tells us, when inhaled, is provocative of this ailment of the voice; and this is perhaps a new hint to those who are accustomed to treat diseases of the throat. The worst feature of these cases is, that patients seldom seek medical aid until the disease has become chronic, so that treatment of any kind is really of little avail.

In the course of his pamphlet, Dr. Macdonald deals very fully with the means of treatment, as well as with the prevention of this distressing ailment. It is the unskilled use of the voice, rather than excessive use, which predestines to this disease, and women teachers suffer far more severely and frequently than do male teachers. Our author would have all teachers to undergo a course of instruction in voice-use, and in the regulation of the work of the chest, which should be more prominent in speakers than the work of the vocal cords themselves.

He adds that—"The chief blame lies in the excessive number of pupils in each class, and the crowding of two or more classes into one room. Our present elementary education code, in estimating what it 'considers' (not *directs*) should be the minimum school staff, allows 60 pupils (reckoned by the year's average attendance) for the head-teacher, 80 for each additional certificated teacher, 60 for each provisionally certificated teacher, and 40 for each pupil teacher.* But this rule is enforced only by the inefficient penalty of reducing the grant 'at the rate of 10s. per annum for every unit of average attendance above the number for which the school staff is sufficient.'† The London School Board professes to staff its schools more generously, giving 60 pupils to each head or assistant-teacher and 40 to each pupil-teacher; but, as a matter of fact, my patients usually speak of their classes as containing 70 to 100 scholars. In Germany, as in most countries, the maximum size of the classes in the elementary schools is fixed by law; yet great diversity obtains in different States. Thus, while in Hamburg the maximum number is fixed at 50, we find that in the rural districts of Anhalt 140 is the limit. I am informed on good authority that the laryngitis of teachers is engaging the attention of throat-specialists in Berlin. In France the size of the classes is not limited; but as a rule the number of the pupils is 80 or over. In Italy, Holland, Belgium, Austria, and Hungary the numbers, though limited, nearly or quite reach the last figure. In Russia the maximum size of classes is much less. There the law directs that whenever the number of children in a school exceeds 50, a second teacher shall be appointed, and when it exceeds 80 a third, and so on. In the United States, also, the number of pupils in classes of the *graded schools* is much lower, 40 being considered excessive; and I am told by my friend Dr. Fayette Smith, a member of the New York Board of Education, and himself an experienced laryngologist, that throat-troubles are unknown amongst the teachers."

The Americans appear to be far ahead of us [illegible]is matter of voice-culture, and it is therefore advisable that, having regard to the exigencies of educational advance, School Boards should provide for the health of their teachers by the carrying into effect of the recommendations of our author.

The means for the prevention of throat-troubles in teachers may be summarized, Dr. Macdonald adds, as follows:—"1. The present code needs modification so far as it permits excessive numbers in the classes. Two classes should never be conducted together in the same room. The inspectors should insist on the size, situation, and other circumstances of a class-room being such as to admit of teaching without undue strain of voice.

"2. In the training colleges voice-production should be scientifically and practically taught as an imperative item in the course of study; and, in the appointment of teachers, special care should be given to insure their competency, not only as regards health and strength of voice, but even more, in the knowledge of how to use it.

"3. The teachers should be impressed with the urgent necessity of giving the voice as much rest as possible when suffering from any deterioration, even if due only to a passing cold; and should be instructed to seek advice whenever suffering from any continued pain, hoarseness, cough, or unwonted fatigue. The importance of this latter point cannot be over-estimated when we remember the simple and tractable beginnings of the formidable train of evils I have endeavoured to describe."

The pamphlet, we repeat, is well worthy the close attention of medical men, School-Board members, and teachers themselves. "Prevention is better than cure," and Dr. Macdonald, who shows very clearly, not only the means of treatment, also as plainly points out how these throat-troubles may be avoided.

Magazines for April.—The numbers of *The Housewife* for March and April are very readable, although in our opinion the space occupied by the "character-reading from photographs" might be much more advantageously used than at present. In the article on "Ventilation," the writer, we observe, follows closely (including reproduction of the illustrations) the chapter on that subject in Dr. Andrew Wilson's *Manual of Health-Science*, the result being that a highly interesting article has been compiled on the topic in question. This magazine will prove a useful companion to housewives at large. *The Season* (13, Bedford-street, Covent Garden, W.C.), by its bright and effective illustrations and its explicit directions, continues to take the first rank as a guide to fashion in ladies' dress. Messrs. Cassell's serials, the *Illustrated History of England*, *New Popular Educator*, and *Countries of the World*, are as usual highly educative and instructive in tone. *Belgravia* presents an admirable series of short stories, and is strong in fiction, while the *Gentleman's Magazine* has interesting papers on "Chess," "Othello," and the Essays of John Burroughes.

Treatment of Piles by Glycerine.—Mr. Harle, M.R.C.S., of Hackney, reports that he has recently employed enemata of glycerine in one case with such success that in a few weeks a congested internal pile was reduced from the size of a large filbert to that of a pea. The patient injected two drachms of glycerine into the rectum every morning a short time before going [illegible]stool.

* See Article 83 of the Education Code for 1888.
† Article 115.

IMPORTANT ANNOUNCEMENT.

COMMENCEMENT OF A NEW VOLUME ON FRIDAY, APRIL 5th.

BONUSES TO SUBSCRIBERS TO "HEALTH."

Health, as our readers are aware, may be obtained of all Booksellers and Newsagents, and at the Railway Bookstalls, on the day of publication. It may also be ordered from the Publisher, 2, Paternoster-square, London, E.C., who will send the journal, post free, for a year, on receipt of postal orders for 10s. 10d.

As many of our readers who live in remote districts prefer to obtain Health from the Publisher direct, and as we are desirous of increasing the already large number of subscribers who give us a yearly order for the journal, we offer the following Free Gifts and Bonuses to all who subscribe to Health for one year or longer:—

(1.) To each Subscriber who remits 10s. 10d. to the Publisher, entitling him (or her) to receive one copy of Health, post free, for one year, we shall present a copy of Dr. Andrew Wilson's work, entitled "A Manual of Health Science" (Longmans & Co.), value 2s. 6d.

(2.) To each subscriber who remits 21s. 8d., entitling him or her to receive two copies of Health weekly, post free, for one year (or one copy for two years), we will present Dr. Richardson's "Ministry of Health" (Chatto & Windus), value 6s. The copies of Health so ordered may be posted to separate addresses.

(3.) To each person who subscribes 32s. 6d., for three copies of Health, post free, weekly, for one year, we will present the volume by Dr. Richardson mentioned above, and also the handsome, illustrated book entitled, 'Studies in Life and Sense," by Dr. Andrew Wilson (Chatto & Windus), value 6s.—being a free gift of the total value of 12s.

The bonus last mentioned will also be presented to anyone who succeeds in obtaining three yearly subscribers to Health, and who remits to the Publisher the sum of 32s. 6d., together with the names and addresses of the persons to whom the copies are to be posted each week.

As the literary gifts above-mentioned constitute books containing solid and reliable information regarding health and other matters of popular scientific interest, it will be seen that the above scheme, while intended to increase our already large circulation, also offers distinct advantages to new subscribers who guarantee by their subscriptions a year's support to this journal. All communications regarding subscriptions and other purely business details connected with Health should be addressed directly to the Publisher, 2, Paternoster-square, London, E.C., and *not to the Editor.*

A simple test for blood, and easy of application, is made by the addition of tincture of guaiac and ozonized ether to a weak solution of blood, when a bright blue colour is produced. If a drop of blood be mixed with one half ounce of distilled water, upon the addition of one or two drops of tincture of guaiac a cloudy precipitate of the resin appears, and the solution has a faint tint. If to this solution one drop of an ethereal solution of hydrogen peroxide is added, a blue tint appears, which, upon a few minutes' exposure, gradually deepens. This test is very valuable for minute quantities of blood, and Dr. Day, of Geelong, succeeded in obtaining sixty impressions from a stain upon cloth where the microscope failed to show any blood.

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Messrs. W. Inman & Co., of 8, Shandwick-place and 46, Leith-street, Edinburgh, have forwarded us a sample of their Compound Syrup of the Hypophosphites. On examination, we find it to be an excellent preparation, containing all the necessary constituents for that restoration of nervous strength, which is so essential to the successful treatment of wasting or debilitating diseases. The curative properties of the Hypophosphites in affections of the respiratory organs have been permanently established, and in all forms of nervous debility their action is marked and certain. The admirable tonic nature of this syrup has long been recognized by the medical profession, and we can confidently recommend it as a powerful invigorator of the nervous system. It possesses a pleasant taste, and will prove agreeable to the most delicate stomach; this latter result in itself is a recommendation, inasmuch as many other preparations of a similar kind produce nausea in the case of delicate patients from their crude and bitter taste. Its use may be prolonged without the slightest injury to the system, or discontinued without discomfort. It is best taken after meals, and the dose is a teaspoonful in a wineglassful of water. Persons living in the country, or unable to get it from their chemists, may have it sent by parcel post on writing to Messrs. Inman & Co.

Our Letter-Box

"Conference [maketh] a ready man."—*Bacon.*

NOTICES TO CORRESPONDENTS.

All Communications for the Editorial Department (including Books for Review, Specimens of Sanitary Appliances, &c.), to be addressed to "The Editor of Health," 2, Paternoster-square, London, E.C. *Those intended for the Publishing Office to be sent to* Mr. A. P. Watt, The Publisher, *at the same address.*

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Petite Santé.—Give up tea and coffee altogether. There can be no harm in your continuing the Cascara, and along with the diet-hints given to "Soho" in Health, No. 311, you should keep well. You should also bear in mind that the injection of a teaspoonful of glycerine is an admirable substitute for purgatives and ordinary enemas. In your case, as there is defective circulation, we advise you to take, after your meals, the Scott's Pure Cod Oil Emulsion, as ordered to "Auguste" above. This will act as a nutrient and brace up your system, and will also tend to remove the constipation.

B. D. E.—Rhubarb should not be taken by you. It contains oxalate of lime. You should drink the Pitkeathly Water with Lithia (advertised in our pages—Reid & Donald, Perth) as an excellent preventive of gouty symptoms.

Paterfamilias.—1. You are wrong; what you name may quite well have occurred under the circumstances you name; you can only be certain if the usual symptoms of health occur at the usual time. 2. Not correct; such a thing is quite possible, even against the will. 3. Only a foolish superstition.

A. Kennedy.—There is no foundation whatever for your fears. Follow out the diet-hints contained in the pamphlet, and you will get quite well.

Thomas Thorn.—See advice given to "A. Kennedy" above. Your fears are groundless; and there is nothing at all in what you describe which plenty of fresh air, exercise, plain food, and a cheerful mind will not cure. If you feel out of sorts at any time, take a teaspoonful of Inman's Syrup of the Hypophosphites twice daily, in a wineglass of water, after your meals.

Astley Gate.—You are only needlessly alarming yourself. Simply follow out the health-rules laid down in the pamphlet as to diet, exercise, and cold sponging, and take no drugs at all. You feel in perfect health, you say; therefore it is simply your disturbed mind which is affecting you, and there is no reason for any such disturbance. Exercise common cleanliness, and wash each morning and night, and what you name will cease to trouble you.

Berber.—Read the article on "Acne" in Health No. 199 (to be had from the Publisher), and follow out the treatment there indicated. Avoid excess of fatty foods, and take warm baths frequently. For your hair—wash it once a week with Bayley's Soap and tepid water, and use each morning a little of the lotion recommended to "Mark L." in the present number. Use soft brushes only, and avoid small and hard combs.

W. J. T.—"Listerine" is an American preparation, we believe, and is advertised in American medical journals. If you write again in a month or so, we may be able to give you the address of the maker. Perhaps a wholesale drug-house (Messrs. Burroughs, Wellcome & Co., London, E.C.) might procure it for you. We advise you to try the sea-air cure for your ailment—that is, residence by the sea for a month or two. This often cures when nothing in the way of drugs can better a case. The disease is often due to constitutional weakness, which sea-air (and cod oil after food) affects in a wonderful fashion. Place a little pure almond oil in the ear at night, and do not place dependence on drugs. Messrs. Krohne & Sesemann, Duke-street, Manchester-square, London, W., will advise you regarding any apparatus you may need, but try Tynemouth for a month or two, first of all.

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